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December 15, 1994

94-RF-12293

Jessie M. Roberson
Assistant Manager for
Environmental Restoration
DOE/RFFO

TRANSMITTAL OF CLOSURE STRATEGY PAPER FOR OPERABLE UNIT (OU) 15, INSIDE
BUILDING CLOSURES, TO THE DEPARTMENT OF ENERGY/ROCKY FLATS FIELD OFFICE
(DOE/RFFO) - SGS-645-94

Action: Review of Closure Strategy Paper and Subsequent submittal of Document to the Colorado
Department of Public Health and Environment (CDHPE) and the Environmental Protection
Agency (EPA).

The purpose of this letter is to transmit the Closure Strategy Paper as revised per your comments
from November 16, 1994 to DOE/RFFO.

This final revision of the Closure Strategy Paper has been completed per DOE/RFFO direction. As
discussed in the meeting held on October 5, 1994 with DOE/RFFO, CDPHE, and EPA, this Closure
Strategy Paper has been developed to discuss alternatives for OU 15 closure. A final
recommendation for closure, based on the results of the Stage I and II sampling and presented
within the Final Phase I RCRA [Resource Conservation and Recovery Act] Facility
Investigation/Remedial Investigation (RFI/RI), has been included in the Closure Strategy Paper.

The remedy that should be proposed within the Proposed Plan and Draft Modification of the
Colorado Hazardous Waste Permit for the Rocky Flats Site should be "No Action" to permanently
close out five of the OU 15 Individual Hazardous Substance Sites (IHSS). IHSS 204 should be
transferred out of OU 15 to the restructured Industrial Area OU which coordinates IHSS closure with
Decontamination and Decommissioning.

If you have any questions regarding this correspondence, please contact Rich Ray at telephone
extension 8557.

S. G. Stiger, Director

Environmental Restoration Program Division

RJR:jlm

Orig. and 1 cc - J. M. Roberson

cc:
R. J. Hyland - ASC
W. Fitch - DOE/RFFO

REVIEWED FOR CLASSIFICATION, DONT	
BY	G. J. GORDON 830
DATE	4-17-95

**CLOSURE STRATEGY PAPER
FOR
OPERABLE UNIT NO. 15
INSIDE BUILDING CLOSURES
(December 1994)**

I. EXECUTIVE SUMMARY

Based on the results of fieldwork completed per the approved Phase I RCRA Facility Investigation/Remedial Investigation (RFI/RI) Work Plan for Operable Unit (OU) 15 and presented within the Draft Phase I RFI/RI Report for OU 15; No Action is necessary to be protective of human health and the environment at five of the six OU 15 IHSSs. The exception is the Original Uranium Chip Roaster, IHSS 204 (chip roaster), from which worker exposure could exceed the five (5) roentgen equivalent man (rem) per year standard promulgated by the Department of Energy (DOE) and Nuclear Regulatory Commission (NRC).

The remedy proposed within the Proposed Plan (PP) and Draft Modification of the Colorado Hazardous Waste Permit (CHWP) for Rocky Flats Environmental Technology Site (RFETS) for OU 15 should be "No Action" to permanently close out five of OU 15 IHSSs. The chip roaster should be transferred to the restructured Industrial Area OU which coordinates IHSS closure with Decontamination and Decommissioning (D&D).

II. INTRODUCTION

Preparation of a Closure Strategy Paper was agreed upon by DOE, CDPHE and EPA during an October 5, 1994 meeting. It was agreed that this strategy paper be prepared to document the decision making process with regard to remedy selection for OU 15 IHSSs. Specifically, the basis on which OU 15 decisions are made must be documented within the Administrative Record for OU 15 to support the Corrective Action Decision/Record Of Decision (CAD/ROD) for OU 15 and ensure that the remedy selected for OU 15 is not construed to be arbitrary and capricious.

All of the OU 15 IHSSs are located within buildings as listed below:

IHSS 178	Building 881, Drum Storage Area (Room 165)
IHSS 179	Building 865, Drum Storage Area (Room 145)
IHSS 180	Building 883, Drum Storage Area (Room 104)
IHSS 204	Building 447, Unit 45, Original Uranium Chip Roaster (Rooms 32 and 502)
IHSS 211	Building 881, Unit 26, Drum Storage Area (Room 266B)
IHSS 217	Building 881, Unit 32, Cyanide Bench Scale Treatment (Room 131C)

The results of the Phase I RFI/RI investigation can be summarized as follows:

1. All six (6) of the OU 15 IHSSs meet the clean closure performance standards specified within the CHWP for RFETS;
2. No evidence exists to indicate that releases of hazardous or radioactive constituents have occurred from OU 15 IHSSs to the environment outside of buildings;
3. No evidence exists to indicate that an imminent threat of a release of hazardous or radioactive constituents from OU 15 IHSSs to the environment exists;
4. The IHSSs investigated are in compliance with the Applicable or Relevant and Appropriate Requirements (ARARs) specified within the approved Phase I RFI/RI Work Plan for Operable Unit (OU) 15;
5. Radiological contamination present within Building 447, Rooms 502 and 32, which resulted from the operation of the chip roaster, could potentially cause worker exposure to exceed the five (5) rem per year standard promulgated by the DOE, AEC, and NRC; and
6. Beryllium concentrations detected within IHSS 179 and IHSS 180 are indicative of background concentrations due to building operations within Buildings 865 and 883, respectively.

III. OU 15 CLOSURE STRATEGY

RCRA Closure of OU 15

The RCRA closure strategy presented herein includes IHSSs 178, 179, 180, 211 and 217. The chip roaster is not included within this discussion of RCRA closure. Since the five (5) IHSSs listed above meet the clean closure performance standards specified within the CHWP for RFETS, these IHSSs can be clean closed with respect to RCRA without taking corrective action. Therefore, evaluation of corrective action under RCRA is not necessary. In order to proceed with RCRA clean closure DOE should request that the CDPHE (i.e., the State) modify the CHWP for RFETS. Modification of the CHWP should be coordinated with CERCLA remedy selection by proceeding in a manner similar to that used for closure of OU 16.

CERCLA Remedy Selection for OU 15

The CERCLA remedy selection strategy presented herein includes IHSSs 178, 179, 180, 211 and 217. The chip roaster is not included within this discussion of CERCLA remedy selection. IHSSs 178, 179, 180, 211 and 217 are in compliance with the five (5) rem per year standard promulgated by the DOE and NRC based on the Draft Phase I RFI/RI Report for OU 15. In addition, IHSSs 178, 179, 180, 211 and 217 meet the ARARs specified within the approved Phase I RFI/RI Work Plan and no source of contamination exists within these IHSSs. Beryllium concentrations within IHSSs 179 and 180 are the result of building operations, not releases from OU 15 IHSSs, and are indicative of background concentrations within Buildings 865 and 883. Beryllium is considered a building issue and will be addressed as such through building economic development or D&D.

Since no source of contamination exists from IHSSs 178, 179, 180, 211 and 217; there is no complete pathway for exposure and there is no risk associated with these IHSSs. Evaluation of remedial alternatives is not necessary since IHSSs 178, 179, 180, 211 and 217 are already in a protective state with regard to protection of workers, the environment and the public. Since OU 15 IHSSs are already in a protective state, "No Action" under CERCLA is appropriate and can be considered a presumptive remedy. In order to proceed with CERCLA remedy selection for

IHSSs 178, 179, 180, 211 and 217; a draft PP should be prepared proposing a "No Action" alternative as the remedy selected. CERCLA remedy selection should be coordinated with RCRA closure in a manner similar to that used for closure of OU 16.

Original Uranium Chip Roaster, IHSS 204

The chip roaster is the only mixed waste treatment unit for oxidation of uranium contaminated with RCRA regulated constituents at RFETS which has interim status under RCRA. Because of its pyrophoric nature, handling and shipment of the uranium waste may be difficult. The continued capability to oxidize uranium (i.e., mixed waste) at RFETS would be very beneficial if treatment is required for shipping and/or safe handling of the uranium waste. Future use of the chip roaster for treatment of waste is anticipated. However, the continued use of the chip roaster for mixed waste treatment may require that it be permitted under the CHWP for RFETS prior to it being used in the future.

Chip roaster closure under RCRA and remedy selection under CERCLA should be coordinated with (i.e., delayed until) Building 447 D&D to allow the chip roaster to be utilized in the future if necessary. Based on this information the chip roaster should be transferred to the restructured Industrial Area OU which coordinates IHSS closure with D&D.

IV. EVALUATION OF REMEDY/CLOSURE OPTIONS

It is assumed in the following discussions that all of the OU 15 IHSSs can be "clean closed" with respect to RCRA. The primary concerns are the CERCLA remedy selection to be proposed and the associated type of CAD/ROD to be utilized per EPA guidance. The chip roaster is not included within this discussion of CERCLA remedy selection.

Do Nothing Option

Under this option approval of the Phase I RFI/RI Report would be obtained and no future work on OU 15 would be initiated. Closure of OU 15 would not be completed until the sitewide CAD/ROD is prepared to remove RFETS from the National Priority List.

No CERCLA Authority CAD/ROD Option

The applicability of CERCLA with regard to operations inside buildings at RFETS would be reconsidered under this option. The No CERCLA Authority option would be contentious and difficult to implement due to the high potential for disagreement between DOE, EPA and CDPHE. EPA would in effect be agreeing that the current IAG does not grant CERCLA authority inside operating buildings at RFETS. The applicable DOE Orders and Federal Regulations (i.e., the approved ARARs presented within the Phase I RFI/RI Work Plan for OU 15) which would supersede CERCLA would be presented within the CAD/ROD and formally agreed to upon CAD/ROD adoption.

No Action CAD/ROD Option

Based on the Phase I RFI/RI Report for OU 15, the approved ARARs for OU 15 have been met for IHSSs 178, 179, 180, 211 and 217. Since there is no source of contamination associated with these IHSSs, no risk exists and no action is necessary to be protective of workers, the environment and the public. The No Action option can be considered a presumptive remedy and would be a permanent remedy. This option would allow agreement between EPA, DOE and CDPHE to be reached without having to address contentious political issues such as the authority of CERCLA within operating buildings at RFETS.

Institutional Controls CAD/ROD Option

The applicability of CERCLA with regard to operations inside buildings at RFETS would be reconsidered under this option. The Institutional Controls option would be contentious and difficult to implement due to the high potential for disagreement between DOE, EPA and CDPHE. DOE would in effect be agreeing that the current IAG grants CERCLA authority over operations within buildings at RFETS. Current administrative controls at RFETS utilized to meet DOE Orders and Federal Regulations (i.e., the approved ARARs presented within the Phase I RFI/RI Work Plan for OU 15) would become the institutional controls presented within the CAD/ROD and formally agreed to upon CAD/ROD adoption. However, the current administrative controls are not in place due to OU 15 IHSSs but are in place due to past building operations and do not necessarily apply to OU 15 IHSSs. The Institutional Controls option is not appropriate for IHSSs 178, 179, 180, 211 and 217 since there is no source of contamination associated with these IHSSs and therefore nothing to control to reduce risk.

In addition, Institutional Controls CAD/ROD would not be a permanent remedy. Review of an Institutional Controls CAD/ROD document would have to be completed every five years to ensure that changes in administrative controls for the buildings were addressed until D&D was completed. Significant costs would be incurred to maintain Federal funding/budgeting requirements necessary for review of an Institutional Controls CAD/ROD every five years.

Interim CAD/ROD Option

An Interim CAD/ROD has been proposed as an option. However, there is no precedent for an interim ROD under CERCLA. Preparation of Interim CAD/ROD documents would be difficult since there is no EPA guidance documents available for document preparation. Agreement on the content of the associated documents, coordination of public participation, etc. would require additional resources, money and time due to the lack of EPA guidance available. An Interim CAD/ROD will not provide added value since a final CAD/ROD would still have to be prepared for OU 15. In affect an Interim CAD/ROD would probably have to be structured similar to either the No Action CAD/ROD or Institutional Controls CAD/ROD described above, including a five year review of the CAD/ROD.

Remedy CAD/ROD Option

A remedy is not necessary for IHSSs 178, 179, 180, 211 and 217 in order to ensure protection of the public, workers, and the environment. The Administrative Record for OU 15 does not support a decision to take remedial action at OU 15 IHSSs and such a decision could be considered arbitrary and capricious.

V. SUMMARY

Based on the results of fieldwork completed per the approved Phase I RFI/RI Work Plan for OU 15 and presented within the Draft Phase I RFI/RI Report for OU 15; a "No Action" remedy is protective of human health and the environment for IHSSs 178, 179, 180, 211 and 217. The "No Action" remedy should be proposed for IHSSs 178, 179, 180, 211 and 217. The chip roaster (IHSS 204) should be transferred to the restructured Industrial Area OU which coordinates IHSS closure with D&D.